Mr. Ross

The Bulletins are published weekly throughout the school year (thirty issues) to aid teachers and students in keeping abreast of geography behind current news events.

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PLANET FROM BLACK STAR

IN THE NETHERLANDS (Bulletin No. 1), WOODEN-SHOED CHILDREN DIP FISH FROM A HARBOR

Bulletin No. 1, April 30, 1951

Storybook Holland Lures Spring Visitors

HOLLAND has its welcome mat out for spring visitors—a carpet of colorful bulb fields stretching all the way from Leiden to Haarlem. Tulip, narcissus, and hyacinth are blooming and attracting thousands of sight-seers to that part of the Netherlands.

Sometimes popularly applied to the entire country, the term Holland really belongs only to two of the Netherlands' 11 provinces. North Holland and South Holland extend along the North Sea in the central part of the Netherlands. They are mostly below sea level. Much of the country's wealth, population, and leadership centers in them.

Bulb Exporting Is Big Business

Holland is famous for its picture-post-card scenery (illustration, cover), complete with canals, windmills, tulip beds, and farmers in baggy trousers. Its sandy irrigated soil is especially suited to the growing of bulb flowers. Tulips are outstanding.

The flower farmers sell cut flowers (illustration, next page), but their biggest business is in exporting the bulbs to brighten gardens over all the world. The bulbs of these gay multicolored flowers provide the Netherlands with its largest dollar income. With tulips forming the main item, they brought the country nearly $7,500,000 in 1949, an increase of about $700,000 over the previous year.

Such figures offer striking evidence of the continuing success story of the flower which was first introduced into the Netherlands almost 400 years ago. But they are by no means in the fantastic class of the prices paid for tulips at the height of an early speculative boom.

A great tulip craze swept the Netherlands and near-by countries during the 1630's. At the demand's peak, single bulbs of rare varieties sold for thousands of gold florins. A prize black tulip won an award of 100,000 florins, or about $60,000.

Fortunes Made and Families Ruined

Amateurs as well as regular merchants plunged into the traffic. One bulb was bartered for a pair of horses, a carriage, and 4,600 guilders (approximately $2,750). In many cases the speculative fever and prices zoomed upward for unseen and unmarketable bulbs.

When the bubble finally burst, fortunes had been made and families ruined—and the dictionary had gained the descriptive word "tulipomania."

Although tulip culture has found its greatest expression in northern Europe, this flower is actually native to Mediterranean and Eastern lands. The name comes from Turkish and Persian words for turban.

The Turks early cultivated the blossoms, in a slenderer form than the rounded ones developed by Netherlanders. Some 2,000 named varieties have come into existence since the bulb was introduced into the Netherlands, by way of Constantinople (Istanbul) and Vienna, around 1570.

During World War II, the Germans did not flood the flower-raising

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G. MICHEL

SUPERVISED BY BELGIAN ENGINEERS, WORKERS SCRATCH OUT A NARROW ROAD ON A BELGIAN CONGO MOUNTAIN SIDE

Pick and shovel are their "machinery" on this project in the Kivu Mountains near Costermansville. South, in the Katanga mining district, heavy machinery is gouging out tons of ore rich in copper, uranium, tin, and many other valuable metals (Bulletin No. 3).

Dawson Out, Whitehorse In as Yukon Capital

PLANK down your dollar, Dan McGrew. The *Klondike Nugget* has one more ghostly headline to sell. Canada is moving the capital of Yukon Territory from Dawson (illustration, next page) to Whitehorse.

In the Yukon's gold-plated past, such an announcement would have been out of reason. Near the turn of the century, Dawson had 30,000 hopeful adventurers camped at the junction of the Klondike and Yukon rivers. It was a capital known around the world. Whitehorse was a mere tent town halfway to wealth.

New Yukon Trail

When the news of the change in the capital came this spring, however, the pages had long been closed on one of the wildest chapters in the history of gold. The dollar-a-copy *Nugget* is published no more in the land "where the mountains are nameless, and the rivers all run God knows where." The day of Dan McGrew, hero of Robert Service's poem, is as dead as the sagging shell of the real-life Store that Sells Most Everything.

Whitehorse, a pioneer town known to thousands of American GIs, is today's booming crossroads on a new Yukon Trail.

Huge overland buses and cargo trucks now roar the year round into Whitehorse, midway on the Alaskan Highway. The White Pass and Yukon Railway chugs in from Skagway, with its deepwater wharfs on the Inland Passage. Transcontinental planes land at the busy airport on the bulldozed bench above the town, and bush pilots take off for the remotest corners of Yukon and Alaska.

Only the wood-burning stern-wheelers, now waiting for the ice to go out on the Lewes River, remind Whitehorse of the years when "cheechakos" by the thousands struggled over Chilkoot Pass and White Pass, whipsawed crude scows out of virgin spruce at the town of Bennett, and ran the man-killing rapids below Miles Canyon, where Jack London once was a pilot on the river road to the Klondike.

Whitehorse residents remember far more vividly 1942, the fantastic year when homesick, mosquito-slapping American engineers clawed their way through unmapped wilderness with giant bulldozers, and built a 1,523-mile road to Alaska in a single summer.

Postwar Conditions Closed Canol Project

Whitehorse has felt the loss of the war-built Canol oil refinery. In 1944, a four-inch pipeline snaked across the wild Mackenzie Mountains from Norman Wells far to the north. The Whitehorse refinery fed gasoline all up and down "The Road" to airports along the vital Northwest Staging Route to Alaska, path of lend-lease planes on their way to Russia.

After the war, cheaper ocean transport forced the Canol project to close and in 1948 the refinery was dismantled and moved by truck and railroad 1,400 miles southwest to Edmonton, capital of Alberta.

But tourist traffic and Alaska-bound freight kept mounting on the all-weather gravel highway, and Whitehorse kept growing. In February

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fields as they did other sections. They apparently planned to take over the business, and shipped tons of bulb soil to Germany, along with rare and expensive types of the flowers. Many a Holland farmer risked his life, it was reported later, by substituting inferior bulbs for those the Germans selected.

At the depth of wartime shortages, the Dutch were forced to eat large numbers of their bulbs—a diet that was far from popular, since the bulbs are non-nourishing, unappetizing, and contain a disturbing acid.

NOTE: The Netherlands is shown on the National Geographic Society's map of Western Europe. Write the Society's headquarters, Washington 6, D. C., for a price list of maps.

For additional information, see "Mid-Century Holland Builds Her Future," in the *National Geographic Magazine* for December, 1950; "Mending Dikes in the Netherlands" (20 photographs), December, 1946; "Holland Rises from War and Water," February, 1946; "Low Countries Await Liberation" (10 photographs), August, 1944*; "Behind Netherlands Sea Ramparts," February, 1940; "New Country Awaits Discovery," September, 1933 (out of print; refer to your library); and "A Vacation in Holland," September, 1929. *(Issues marked with an asterisk are included on a special list of Magazines available to teachers in packets of ten for $1.00; issues unmarked are 50¢ a copy.)*

See also, in the GEOGRAPHIC SCHOOL BULLETINS, February 6, 1950, "Haarlem to Erect Statue to Boy at the Dike."

HILMAR PABEL FROM THREE LIONS

HOLLAND'S CUT AND POTTED FLOWERS ARE AUCTIONED NOISELESSLY IN THIS AALSMEER MARKET

The buyers face a large special clock. When its hand moves down to a figure that a buyer wishes to bid, he pushes a button, the buyer's number is flashed, and the sale is completed.

Bulletin No. 3, April 30, 1951

Belgian Congo Unearths Mountain of Tin

BURIED in ancient bedrock beneath the Belgian Congo's Katanga plateau is a rainbow's-end pot of tin ore as big as a mountain.

Large shipments of heavy mining machinery from United States ports to the remote village of Manono, in the Congo's southeastern wedge, reveal that one of the biggest tin discoveries since World War II is beginning to pay off.

Muscle Power Scratched the Surface

From the surface of a giant block of tin-bearing rock whose bottom has not yet been found, ore is being blasted and gouged out by bulldozers, drills, and power shovels. It is crushed, concentrated, and smelted in the heart of Africa, then sent as gleaming ingots of tin 8,000 miles to help build the United States strategic stockpile.

Manono's tin pits, their gravel-like ores loose and crumbled by countless ages of seeping water, have long been one of the principal sources of tin in Belgian Africa. Native muscle power has pockmarked the area with shallow surface diggings. During World War II, one American government official said, "10,000 wheelbarrows and 50,000 shovels" were sent into the Congo under the heading of "mining machinery." This type of "machinery" often has been used in Belgian Congo engineering projects (illustration, inside cover).

After the war, Belgian engineers drilled deeper, testing the floor of the Manono field. Instead of worthless rock, they found that a tin-rich lode extended far underground—as far as the drills were pushed.

"Enough tin was found to keep the company producing at its present rate for 100 years," a visiting Belgian industrialist recently informed the National Geographic Society—"and the bottom has yet to be reached."

Wartime Output Second Only to Bolivia

Last July an Economic Recovery Administration loan of $1,700,000 was granted the Compagnie Géologique et Minière (Geomines) for mechanization of the Manono tin field. The Marshall Plan aid is to be repaid in tin for the United States. New crushing and washing plants are being built to process the hard source rock. A hydroelectric plant on the Luvua River, tributary of the upper Congo, has been boosted in power.

Belgian Congo tin output ranked behind that of Malaya, Indonesia, Bolivia, Thailand, and Nigeria before the war. As wartime needs of the Allies reached to all unconquered corners of the world for the humble metal of many uses, the Congo production rose to stand second only to Bolivia. If the Far East were once again cut off from the West, the tin arsenal in deepest Africa would again be vital.

Katanga Province is a treasure chest of many minerals. One of the last regions of the Congo to be explored and conquered, its wealth cannot yet be estimated in dollars and cents.

The Manono field also produces columbium and tantalum, valuable alloys for steel. Cobalt, industrial diamonds, zinc, coal, cadmium, lead,

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of 1950, in a roar of aircraft, "Exercise Sweetbriar" descended briefly on the town, as United States and Canadian troops held joint cold-weather maneuvers along the Alaskan Highway.

Whitehorse talks about the rich copper deposits spotted through surrounding hills, which were tapped only for a decade in the early 1900's. It talks about the silver-lead mines at Mayo in the heart of the Yukon, the electric-powered gold dredges still working the Klondike's $200,000,000 creeks, the iron and coal that lie untouched beneath the territory's timbered mountain slopes, and the rich farming soil of its river valleys.

The Yukon, its people say emphatically, did not die with Dangerous Dan McGrew.

NOTE: Yukon Territory may be located on the Society's map of Canada, Alaska & Greenland.

For further information, see "First American Ascent of Mount St. Elias," in the *National Geographic Magazine* for February, 1948*; "Alaskan Highway an Engineering Epic," February, 1943; "Family Afoot in Yukon Wilds," May, 1942; "Exploring Yukon's Glacial Stronghold," June, 1936; and "To-day on 'The Yukon Trail of 1898,'" July, 1930.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, October 10, 1949, "Whitehorse to Be Stage for Arctic Maneuvers"; and "Alaska Highway Awaits Peacetime Traffic," March 15, 1948.

E. ANDREWS

WHERE THE KLONDIKE RIVER FLOWS INTO THE BROAD YUKON, DAWSON SLEEPS ON

Only a few hundred persons live in these numerous buildings. During the days of the Klondike rush, however, many thousands of gold seekers filled them to bursting. A wintertime sledge road and summertime river steamers now connect Dawson with Whitehorse, Yukon's new capital.

Bulletin No. 4, April 30, 1951

Perfume Industry Blends Romance and Finance

PERFUME does not clothe, shelter, or nourish. In the United States alone, however, the fabulous business of making and selling fragrances grosses more than one hundred million dollars a year.

In a little-known world of their own, perfumers devise formulas for the glamorous liquids which reproduce the odor of flowers, and even for scents which nature seems not to have thought of.

Nature's Varied Contribution Includes Flowers and Coal Tar

From all over the earth come the raw materials for these delectable preparations. From mountains, jungle, and ocean, and from the animal, vegetable, and mineral worlds are collected the ingredients for perfume.

On the shelves of perfumers' laboratories stand thousands of bottles filled with nature's oils and essences collected from blossoms, leaves, and roots of plants; from seeds, fruits, and grasses—even from bark. Balsams, gums, and resins contribute their share. Even coal tar—unglamorous of name—gives up aromatic chemicals through synthetic processes.

Strangely enough, some of the most alluring and expensive scents—which may cost up to $100 an ounce—contain small quantities of nature's most revolting odors. These are characteristics of many animal substances used as fixatives. Civet, musk, ambergris, and castoreum are a few of these animal fixatives.

Evil-smelling, butterlike civet comes from the civet cats of Ethiopia. Dried grains of musk are taken from the furry abdominal pod of the male musk deer of western China. Sick whales exude waxy, gray-black ambergris. Beaver glands are a source of castoreum. These come to the perfume factories as a by-product of the fur trade of the United States and Canada.

France's La Réunion a Leader in Flower Growing

Such often-revolting odors, greatly diluted, slow up and equalize the evaporation of more easily vaporized perfume oils. Harnessed enemies of fragrance, they miraculously play a part in the production of perfumes with such romantic names as "My Love," "Golden Chance," and "Evening in Paris"; and such seasonal titles as "April Showers," "Spring and Summer," and "Christmas Night."

Flowers with lyric names like ylang-ylang (from the Philippines), mimosa, and jasmine (illustration, next page), supply the perfume factories. Many are harvested on La Réunion, an overseas department of France, in the Indian Ocean.

The mild climate, fertile volcanic soil, and adequate rainfall of La Réunion make it a "natural" of the trade. Another perfumers' paradise is southern France. In this balmy region, farmers, experienced in the work, know the exact moment to gather their ripe crops of jasmine, roses, and orange blossoms; of narcissus, carnations, and hyacinths.

A few miles inland from the sea, the town of Grasse, in France's department of Alpes Maritimes, is the floral-oils center of the world.

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silver, and precious metals such as platinum, palladium, and gold are mined in the Congo.

The Kipushi copper mine, richest of more than a dozen huge copper diggings, alone has yielded more than a million tons since it was opened in 1925. Kipushi is one of the few shaft mines in the Congo; most operations, like those at Manono, are open pits.

Most fabulous of all is the vast hole at Shinkolobwe, 70 miles northwest of Elizabethville. Here, in one of the most inaccessible spots in the world, steam shovels bite great chunks from a deposit which holds about half of all the earth's known uranium ore.

NOTE: The Belgian Congo is shown on the Society's map of Africa.

For additional information, see "Africa's Uncaged Elephants" (14 photographs), in the *National Geographic Magazine* for March, 1951; "We Keep House on an Active Volcano," October, 1939; "Trans-Africa Safari," September, 1938*; and "Keeping House on the Congo," November, 1937.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, November 21, 1950, "Belgian Congo Resources Spur Colonial Plan"; "Congo's Katanga Is Top Uranium Source," October 9, 1950; and "Congo Drum-Telegraph Replaced by Radio," March 7, 1949.

WITH FUNNEL-SHAPED TRAPS, MEN OUTWIT FISH NEAR STANLEY FALLS ON THE CONGO

The large ends point upstream. Fish drift into the wooden snares and cannot swim out against the current. The Congo is the world's fourth-longest river, but falls and rapids make it largely unusable by vessels of any size.

Genoa Honors Columbus on 500th Anniversary

HISTORIANS are generally agreed that Columbus, discoverer of the new world, was born in Genoa (Genova) in 1451. In commemoration of that event, the Italian city is holding the International Columbian Exhibition on the 500th anniversary of the Great Navigator's birth.

Thousands of Americans will view the display, now halfway through a one-year stand from Columbus Day 1950 to the same October 12 holiday in 1951. The exhibit is set up in the Palazzo San Giorgio (St. George's Palace) where modern banking was born early in Columbus's century.

Map by Columbus Displayed

Spain it was that gave Columbus his big chance; so that country joins Italy and America in providing government and private collections of Columbiana for the commemoration. Four halls in the palace hold four classes of exhibit material—relics of Columbus's life and times, documents and papers as gathered for the 1892 fourth centenary of America's discovery, Columbian subjects by Genoese fresco painters, and evidences of America's pre-Columbian times.

Among Spanish contributions is an autographed sketch of the north coast of Haiti, perhaps the only map by Columbus that has survived. The United States Library of Congress has supplied reproductions of rare letters dated 1501-2 describing the Genoan's first three voyages. Caravel models and the Santa Maria's anchor aid the visitor's conception of late 15th-century events.

Who was the man who is celebrated as the discoverer of America? There are great gaps in present-day knowledge about him. Various writers have cited sources to prove that he was not born in Genoa, and that the date 1451 is wrong. Little is known of what he looked like. When, where, and how he died, and where he is now buried are questions still being threshed out by scholars. The volume and variety of unanswered questions about Columbus's life reflect the magnificence of his achievement.

Genoa Holds Trumps

Travelers in Europe can meet the Discoverer by several names (for instance, Cristoforo Colombo in Italian and Cristóbal Colón in Spanish). They can view his purported birthplace or ancestral home in a dozen cities of Italy and as many more in Spain, Portugal, and France. Writers range his birth year from 1436 to 1451. Scores of portraits make him look like as many different men. There are various contentions as to just where he first landed in the West Indies, and as to the final resting place of his ashes or bones.

In the absence of certification, Columbus's name and birth are established from his depositions in Genoese records of the 1470's in which he stated his age. From them it seems likely that he was born in September or October, 1451.

His parents were Domenico and Susanna Colombo, the former a wool weaver. His early boyhood was passed in a slender, five-story house in

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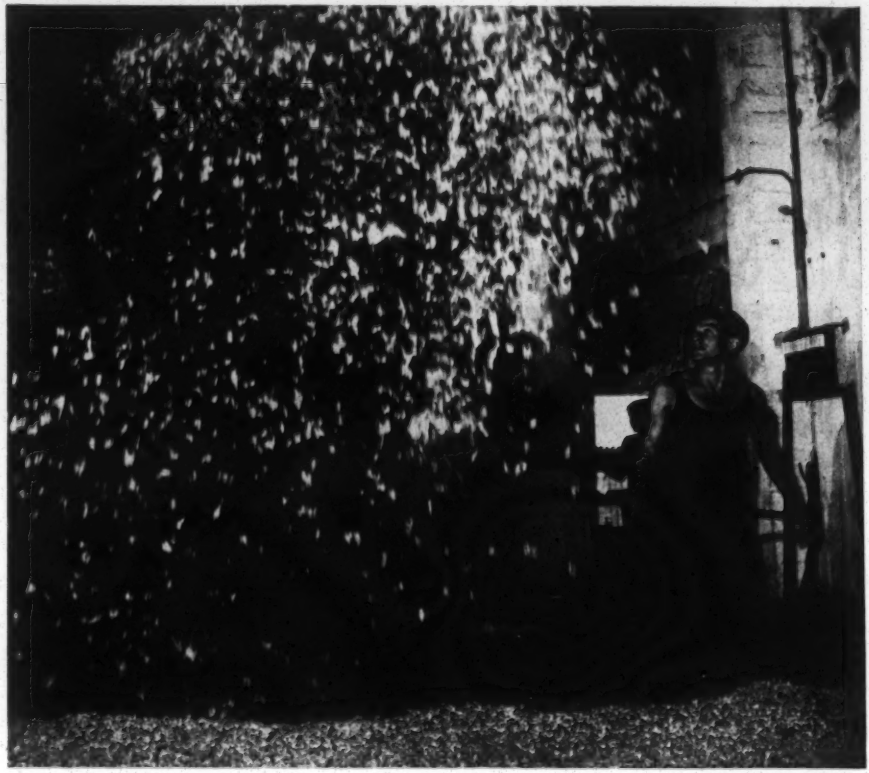
Acres of orange groves and roses flourish in the mild, pleasant climate. Called "the Detroit of Perfume," Grasse is to perfume what Michigan's motor metropolis is to the automobile.

To the perfume trade, Bulgaria contributes its famous roses; India, its sandalwood; Zanzibar, the breath of cloves. The United States grows the peppermint plant—fragrant as well as flavorful—and a number of other specialties that yield perfume oils and essences at the command of the perfumer.

Synthetics made in the laboratory now bring entirely new perfumes to the industry, though it is unlikely that they will ever push the natural oils out of the market. Although it takes four tons of rose blossoms to produce a single pound of rose oil, and rare floral essences bring more than $600 for a mere 16 ounces, there is still demand for the supply of blossoms nature grows in sunny fields the world around.

NOTE: For further information, see "Perfume, the Business of Illusion," in the *National Geographic Magazine* for April, 1951; "Patent Plants Enrich Our World," March, 1948; and "The World in Your Garden" (including 24 paintings), July, 1947.



CARL PERUTZ—MAGNUM

IT ISN'T SNOWING SNOW, YOU KNOW, IT'S SNOWING JASMINE FLOWERS

This worker in a French perfume factory is tossing jasmine blossoms into the air to keep them from mildewing. The jasmine is one of the most useful of all flowers to the perfume manufacturer. It is not only an alluring and popular scent in its own right, but, in combination with other flowers it helps to create many different and delightful fragrances.

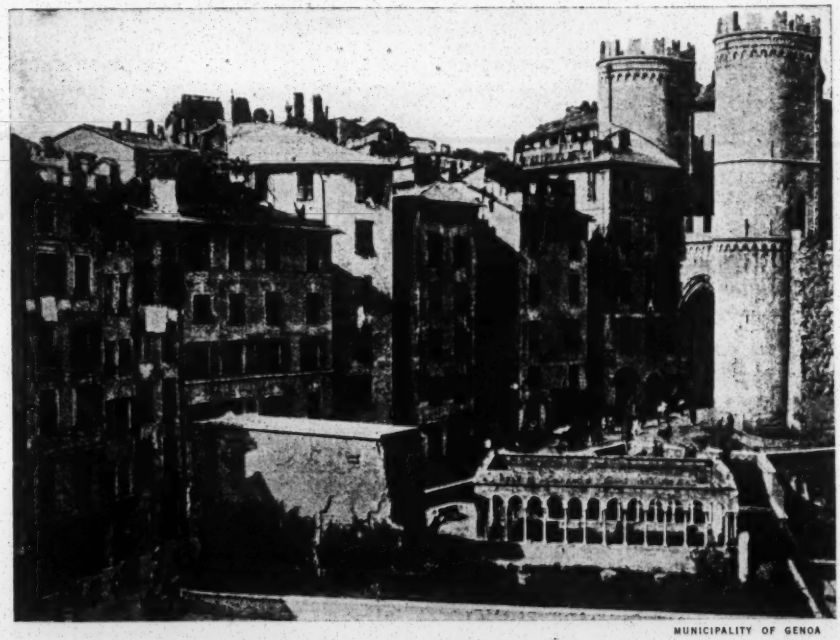
a solid row on a narrow street in the heart of Genoa's present business center. Overlooked for centuries, the house's identity was established about 1885, and it was purchased by the city as a shrine.

Adjoining buildings were removed as were the three inadequately supported upper stories of the house itself (illustration, below). A plaque proclaims in Latin: "No house is more worthy of fame, for here lived the parents of Christopher Columbus and here he passed his youthful days."

NOTE: Genoa (Genova) may be located on the Society's map of Europe and the Near East, and map of Western Europe.

For further information, see "Italy Smiles Again," in the *National Geographic Magazine* for June, 1949; "The Roman Way," November, 1946*; "Italy, From Roman Ruins to Radio," March, 1940; and "Genoa, Where Columbus Learned to Love the Sea," September, 1928; and "Sojourning in the Italy of Today," September, 1933.

See also, in the GEOGRAPHIC SCHOOL BULLETINS, February 12, 1951, "Italy's Northern Plain Is Hub of Nation."



MUNICIPALITY OF GENOA

GENOA PRESERVES THE BLOCKLIKE HOUSE WHERE COLUMBUS LIVED AS A BOY

Facing the street on which the people are walking, the house originally was in a row of high buildings. When flanking tenements were torn down, Columbus's five-story house had to be trimmed to two floors to keep it from toppling.

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